

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the above-identified application.

1. **(Currently amended)** A method comprising:
 - determining whether a resource in a first cluster can be allocated to provide a **first** quantity of the resource to **[[an]] a first** application, wherein the first cluster comprises
 - a plurality of nodes, and
 - the determining whether the resource in the first cluster can be allocated comprises
 - detecting whether one or more applications, ~~other than the first~~ **application**, executing on one of the nodes are compatible with the **first** application, and
 - detecting whether the one of the nodes can provide the **first** quantity of the resource;
 - if the resource in the first cluster cannot be allocated to provide the **first** quantity of the resource to the **first** application, determining whether the first cluster can be reconfigured to provide the **first** quantity of the resource to the **first** application, wherein
 - the determining whether the first cluster can be reconfigured comprises
 - comparing a priority of at least one of the one or more applications to a priority of the **first** application; **and**
 - if the first cluster can be reconfigured, enabling the first cluster to provide the **first** quantity of the resource to the **first** application by reconfiguring the first cluster;
 - and

if the first cluster cannot be reconfigured, restarting the **first** application in a second cluster having a sufficient amount of the resource to provide the **first** quantity of the resource to the **first** application.

2. (Currently amended) The method of claim 1 further comprising:
selecting the **first** application to be allocated the **first** quantity of the resource from a plurality of applications in accordance with a business priority for the **first** application, **wherein the reconfiguring the first cluster comprises partitioning the resource within the first cluster.**
3. (Original) The method of claim 2 wherein the reconfiguring the first cluster comprises:
adding a second quantity of the resource to the first cluster.
4. (Canceled)
5. (Original) The method of claim 2 further comprising:
monitoring performance of a plurality of applications running in the first cluster; and
if performance of one application of the plurality of applications fails to satisfy a criterion,
requesting to allocate a second quantity of the resource for the one application to enable the performance of the one application to satisfy the criterion.
6. (Canceled)
7. (Currently amended) The method of claim 2 wherein:
the determining whether the resource in the first cluster can be allocated to provide the **first** quantity of the resource to the **first** application is performed in response to failure of the **first** application.

8. (Currently amended) The method of claim 2 wherein;
the comparing comprises determining whether each of the one or more applications can be run at the same time as the first application and on the same node as the first application, and
 the determining whether the resource in the first cluster can be allocated to provide the first quantity of the resource to the first application is performed in response to starting the first application.
9. (Currently amended) The method of claim 2 wherein;
 the determining whether the resource in the first cluster can be allocated to provide the first quantity of the resource to the first application is performed in response to identifying a problem with performance of the first application.
10. (Currently amended) The method of claim 2 wherein;
 the determining whether the resource in the first cluster can be allocated to provide the first quantity of the resource to the first application is performed in response to determining that the first application is not in conformance with a policy.
11. (Currently amended) A system comprising:
 a processor;
 an interconnect coupled to the processor; and
 a computer-readable storage medium coupled to the processor via the interconnect, the computer-readable storage medium further comprising computer-readable code, wherein when executed by the processor, the computer-readable code is configured for[:]
 determining whether a resource in a first cluster can be allocated to provide a first quantity of the resource to a [[n]] first application, wherein
 the first cluster comprises
 a plurality of nodes, and

the determining whether the resource in the first cluster can be allocated comprises

detecting whether one or more applications, other than the first application, executing on one of the nodes are compatible with the first application, and

detecting whether the one of the nodes can provide the first quantity of the resource;

determining whether the first cluster can be reconfigured to provide the first quantity of the resource to the first application, if the resource in the first cluster cannot be allocated to provide the first quantity of the resource to the first application, wherein

the determining whether the first cluster can be reconfigured comprises comparing a priority of at least one of the one or more applications to a priority of the first application;

enabling the first cluster to provide the first quantity of the resource to the first application by reconfiguring the first cluster, if the first cluster can be reconfigured; and

restarting the first application in a second cluster having a sufficient amount of the resource to provide the first quantity of the resource to the first application, if the first cluster cannot be reconfigured.

12. (Currently amended) The system of claim 11, wherein the computer-readable code is further configured for:

selecting the first application to be allocated the first quantity of the resource from a plurality of applications in accordance with a business priority for the first application.

13. (Canceled)

14. (Previously presented) The system of claim 12, wherein the computer-readable code is further configured for:

partitioning the resource within the first cluster.

15. (Previously presented) The system of claim 12, wherein the computer-readable code is further configured for:

monitoring performance of a plurality of applications running in the first cluster; and
requesting to allocate a second quantity of the resource for one application of the plurality of applications if the one application fails to satisfy a criterion to enable the performance of the one application to satisfy the criterion.

16. (Currently amended) A system comprising:

a first determining module configured to determine whether a resource in a first cluster can be allocated to provide a **first** quantity of the resource to a **[[n]] first** application, wherein

the first cluster comprises

a plurality of nodes, and

the determining module is configured to determine whether the resource in the first cluster can be allocated by

detecting whether one or more applications, **other than the first application,** executing on one of the nodes are compatible with the **first** application, and

detecting whether the one of the nodes can provide the **first** quantity of the resource;

a second determining module configured to determine whether the first cluster can be reconfigured to provide the **first** quantity of the resource to the **first** application, if the resource in the first cluster cannot be allocated to provide the **first** quantity of the resource to the **first** application, wherein

the second determining module is configured to determine whether the first cluster can be reconfigured comprises

comparing a priority of at least one of the one or more applications to a priority of the first application;

an enabling module configured to enable the first cluster to provide the first quantity of the resource to the first application by reconfiguring the first cluster, if the first cluster can be reconfigured;

a restarting module configured to restart the first application in a second cluster having a sufficient amount of the resource to provide the first quantity of the resource to the first application, if the first cluster cannot be reconfigured; and

communications hardware configured to enable communication between the first and second clusters.

17. (Currently amended) The system of claim 16, further comprising:

a selecting module configured to select the first application to be allocated the first quantity of the resource from a plurality of applications in accordance with a business priority for the first application.

18. (Previously presented) The system of claim 17, further comprising:

an adding module configured to add a second quantity of the resource to the first cluster.

19. (Previously presented) The system of claim 17, further comprising:

a partitioning module configured to partition the resource within the first cluster.

20. (Previously presented) The system of claim 17 further comprising:

a monitoring module configured to monitor performance of a plurality of applications running in the first cluster; and

a requesting module configured to request to allocate a second quantity of the resource for one application to enable the performance of the one application to satisfy a criterion.

21. (Currently amended) A computer-readable storage medium comprising:

determining instructions configured to determine whether a resource in a first cluster can be allocated to provide a first quantity of the resource to a [[n]] first application, wherein

the first cluster comprises

a plurality of nodes, and

the determining instructions configured to determine whether the resource in the first cluster can be allocated comprises

detecting instructions configured to detect whether one or more applications, other than the first application, executing on one of the nodes are compatible with the first application, and

detecting instructions configured to detect whether the one of the nodes can provide the first quantity of the resource;

determining instructions configured to determine whether the first cluster can be reconfigured to provide the first quantity of the resource to the first application, if the resource in the first cluster cannot be allocated to provide the first quantity of the resource to the first application, wherein

the determining instructions configured to determine whether the first cluster can be reconfigured are further configured to compare a priority of at least one of the one or more applications to a priority of the first application;

enabling instructions configured to enable the first cluster to provide the first quantity of the resource to the first application by reconfiguring the first cluster, if the first cluster can be reconfigured; and

restarting instructions configured to restart the first application in a second cluster having a sufficient amount of the resource to provide the first quantity of the resource to the first application, if the first cluster cannot be reconfigured.

22. (Currently amended) A computer-readable storage medium of claim 21 further comprising:

selecting instructions configured to select the first application to be allocated the first quantity of the resource from a plurality of applications in accordance with a business priority for the first application.

23. (Previously presented) A computer-readable storage medium of claim 22 further comprising:

adding instructions configured to add a second quantity of the resource to the first cluster.

24. (Previously presented) A computer-readable storage medium of claim 22 further comprising:

partitioning instructions configured to partition the resource within the first cluster.

25. (Previously presented) A computer-readable storage medium of claim 22 further comprising:

monitoring instructions configured to monitor performance of a plurality of applications running in the first cluster; and

requesting instructions configured to request to allocate a second quantity of the resource for one application to enable the performance of the one application to satisfy a criterion.

26. (Canceled)

27. (Currently amended) The method of ~~Claim claim~~ 1, wherein the first cluster comprises a plurality of nodes, wherein:

at least one node among the plurality of nodes is a multiprocessor node, and
the reconfiguring comprises partitioning the multiprocessor node into multiple nodes.

28. (Currently amended) The system of ~~Claim claim~~ 11, wherein the first cluster comprises a plurality of nodes, wherein:

at least one node among the plurality of nodes is a multiprocessor node, and
the reconfiguring comprises partitioning the multiprocessor node into multiple nodes.

29. (Currently amended) The system of ~~Claim claim~~ 16, wherein the first cluster comprises a plurality of nodes, wherein:

at least one node among the plurality of nodes is a multiprocessor node, and
the reconfiguring comprises partitioning the multiprocessor node into multiple nodes.

30. (Currently amended) The computer-readable storage medium of ~~Claim claim~~ 21, wherein the first cluster comprises a plurality of nodes, wherein:

at least one node among the plurality of nodes is a multiprocessor node, and
the reconfiguring comprises partitioning the multiprocessor node into multiple nodes.

31. (New) The method of claim 1, wherein the determining whether the first cluster can be reconfigured comprises:

comparing a remaining capacity of a candidate server in the first cluster to a load of the first application.

32. (New) The method of claim 1, wherein the determining whether the first cluster can be reconfigured comprises:

comparing a remaining capacity of a candidate server in the first cluster to a load of an application that is incompatible with the first application.

33. (New) The method of claim 1, wherein the determining whether the first cluster can be reconfigured comprises:

comparing a remaining capacity of a candidate server in the first cluster to a revised increased load of the first application.